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ABSTRACT

This document contains four papers from a symposium on professional development of human resource development (HRD) professionals. "Lifelong Learning and Performance: The Role of Key Qualifications in Human Resource Development" (Simone J. van Zolingen, Wim J. Nijhof) argues that, besides being of interest to employers, key qualifications are also of interest to HRD practitioners because they are acquired not only in initial vocational education but also during a process of lifelong learning. The findings of interviews during which 15 senior training executives from Fortune 500 corporate universities spoke about their career paths, education, career obstacles, and essential personal and professional characteristics and competencies are presented in "Analyzing Career Paths of Corporate University Senior Training Executives" (Christopher F. Bober). "Preparing Tomorrow's HRD Professionals: Perceived Relevance of the 1989 Competency Model" (Donna E. Dare, James A. Leach) examines trainers' ratings of 25 trainer competencies and compares the findings to those of a 1991 survey. "Using an On-line Focus Group to Identify Research Issues in Distance Education/Trainer Development" (Margaret L. Bailey, Danilo M. Baylen) reports 10 distance educator/trainers' regarding key characteristics and skills of distance educators/trainers, successful training and development activities and support services, and barriers to successful development. (MN)

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9 HRD Professional Development

Chair: Monica Lee, Lancaster University, England

Lifelong Learning and Performance: The Role of Key Qualifications in Human Resource Development
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Analyzing Career Paths of Corporate University Senior Training Executives
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Preparing Tomorrow's HRD Professionals: Perceived Relevance of the 1989 Competency Model
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Using an On-line Focus Group to Identify Research Issues in Distance Educator/Trainer Development
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Lifelong Learning and Performance: The Role of Key Qualifications in Human Resource Development

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Employers are far from being able to predict what qualifications employees need to have in the future. Therefore there is an increasing consensus developing on the necessity for pupils to acquire key qualifications in initial vocational education. The assumption is that key qualifications enable employees to keep performing well during their career. Van Zolingen (1995) researched key qualifications and she concludes that key qualifications are also of interest to HRD practitioners because they are not only acquired in initial vocational education, but during a process of lifelong learning.

Through changes influencing work employees are confronted with changing qualification demands (Resnick & Wirt, 1996). Economic and commercial changes such as changing markets and stiff competition make organizations swing into action. In the first place a number of organizations implement automation and informating technology in production processes and offices (Child & Loveridge, 1990) and/or use new production techniques (Kern & Schumann, 1984; Appelbaum & Batt, 1994). These actions change the intrinsic character of work. On the one hand because humans have to do the work machines cannot do: the tasks that are not programmable, non routinised, where surprise and variability must be accomodated, where only adaptive human intelligence can make the evaluations and the decisions needed (Resnick & Wirt, 1996). On the other hand because (automated) work becomes the manipulation of symbols with a computer and asks more intellective skills of employees (Zuboff, 1988). Nowadays employees need to know how to find and use information to handle problems (Soden, 1994; Onstenk, 1997). They work more often in teams and for those that do not work in teams it becomes important to solve the complex problems they are confronted with, together with colleagues. Therefore 'soft skills' such as social skills and communicative skills but also interdisciplinary knowledge become indispensable for many employees (Appelbaum & Batt, 1994). And employees that used to have routine jobs nowadays need to be motivated and able to learn. In the second place organizations try to become more efficient by changing their organizational structure. For example by downsizing, by lean production or by business process reengineering (Womack & Jones, 1996; Champy & Hammer, 1993). The effect is that employees have to take more responsibility, more decisions, more initiative and work more indipendent. In the third place organizations pay more attention to personnel management such as career planning and training. Personnel is more often looked upon as human capital. From the perspective of human resource development lifelong learning has become a must for employees to continue to perform well in their occupation (Gilley, & Eggland, 1989; Rothwell, 1996). In the fourth place organizations pay more attention to the quality of products and of production processes and to the special demands of (more critical) customers (total quality management, customization) (Deming, 1986). This means that many employees need excellent social skills, motivation to change, broader understanding of the products they make and of the production processes they operate and knowledge of quality control, quality improvement, customers, customer relations, selling and allience with the quality vision of their organization.

As a result of these changes in the labour system, organizations prefer broadly trained employees that react flexibly and effectively to changes in their work, organization or career.

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These employees have to be capable to implement their knowledge in unpredicatable situations and with demanding customers. This means that employees nowadays need more developed and somethimes different qualifications to continue to perform well in their occupation. We name these key qualifications.

Problem Statement

Mertens introduced the concept key qualifications in a pioneering article in 1974. He suggested that, by devoting more time in vocational education and training curricula to key qualifications, and less time to the acquisition of specific knowledge, the problems in the transition from education to work could be reduced. Firstly, because key qualifications increase employability of employees (for example, when entering the labour market or changing jobs) and secondly, because key qualifications increase the adaptability of employees (they are better able to react to future developments that are not wholly predictable, for example, when there are changes within a job). In other words the performance of employees during their career would stay at an acceptable level with key qualifications. Mertens key qualifications would appear to have in common the fact that they become obsolete (unusable) less rapidly, because they are more abstract and can be used in different jobs, and in this case, have a transfer value. Examples of Mertens' key qualifications are: logical, analytical, structured, associative and contextual thinking; critical thinking using argumentation and discussion; being able to find, select and analyse information, basic knowledge of technology.

Since Mertens introduced the concept key qualifications, the concept has been formulated in various ways, under different names and often with overlapping meanings (see for example extra functional qualifications, broadly applicable occupational qualifications, hybrid skills, core skills, tranferable skills, transition skills, generic skills in Van Zolingen 1995). Yet the concept proved to be very elusive for curriculum developers and they were incapable of applying Mertens' key qualifications to curricula (Reetz, 1989). This problem of developing a theoretical concept of key qualifications that can be operationalized in curricula for vocational education and for training courses forms the subject of Van Zolingens' thesis that forms the point of departure of this paper.

Theoretical Framework

For the above mentioned reasons, Van Zolingen (1995) has provided a new coordinating interpretation of the concept key qualifications on the basis of an extensive literature search (see Figure 1). It is characterised by the following points:

1. Key qualifications have *an occupation-specific interpretation*. The social skills of a 'commercial employee' working in a bank, are defined differently from the social skills of a 'service mechanic'. This occupation-specific interpretation is related to the current demands of the work.
2. Key qualifications are broadly applicable within an occupation; that is to say, in various situations, thus also in situations that differ considerably from the situation(s) in which they were acquired.
3. Key qualifications make it possible to acquire specific knowledge and skills rapidly.
4. Key qualifications facilitate transitions within a career.
5. Key qualifications show an interrelationship, they form a whole. We can distinguish, purely theoretically, a general instrumental dimension, a cognitive dimension, a personality dimension, a socio-normative dimension, a strategic dimension and a socio-communicative dimension (see Figure 1).
6. Development or acquisition of key qualifications initially takes place within the context of the family. During and after vocational training at work, some key qualifications are further developed and others newly acquired in the context of an occupation and in interaction with personality development. In short, the acquisition and further development of key qualifications is a process of lifelong learning.

7. By creating the right educational conditions, for example, by applying particular didactic methods, some key qualifications can be acquired contextually and further developed during vocational education and training.
8. By taking into account employees' autonomy and learning potential when designing jobs, the acquisition of key qualifications can be stimulated during work.

Figure 1. Key Qualifications Redefined

Key qualifications are:

Knowledge, insight, skills and attitudes that are part of the durable core of an occupation or a group of related jobs, with the possibility of transfer to other, new jobs within that occupation and of innovations within that occupation, which contribute to the development of a person's occupational competence and facilitate transitions within the career.

general-instrumental dimension:
-occupationtal knowledge and skills which have a fundamental and/or lasting character and which can be applied in many situations (these include basic skills such as arithmetic, language and reading, general technical know-how, general knowledge of languages, general knowledge of computing, the ability to handle information*, the ability to plan work*, quality awareness*, commercial insight*)
-inter-disciplinary knowledge*
cognitive dimension:
-thinking and acting (identifying and solving problems*, abstract thinking*, methodical thinking*, intellectual flexibility, learning to learn, tacit skills, such as familiarity with material*)
personality dimension:
-showing individual behaviour (self-reliance*, sense of responsibility*, precision*, self-confidence, decisiveness*, exercising initiative*, coping with stress*, creativity*, imagination, willingness to achieve, perseverance, modern citizenship)
socio-communicative dimension:
-communication (ability to express oneself orally*, ability to express oneself in writing*, having a knowledge of modern languages*) and the ability to work together with colleagues, managers and clients (social skills*, solidarity, empathy)
socio-normative dimension:
-ability to adapt oneself to the corporate culture (loyalty, identification, dedication, complying with safety measures*, readiness to take part in further training*, presentability*, knowledge of the organization*)
strategic dimension:
-emancipatory behaviour: showing a critical attitude to work and one's own interests (dealing critically with choices in the technical field and the effects they have*; taking an active part in decision-making and promotion of interests)

The key qualifications with * were part of the policy Delphi (see under method)

Van Zolingen (1995) speaks of *key* qualifications to emphasise their broad applicability within an occupation. This refers to their applicability in new situations (different jobs), the accessing of specific knowledge and of new knowledge, partly through increased opportunities for communication during one's entire career. There is thus talk of a horizontal component (of place): broad applicability, and of a vertical component (of time): acquisition, development and application during one's entire career. Key qualifications specifically involve qualifications that are necessary to practise an occupation. It is essential that key qualifications be acquired within the framework of an *occupation* (during initial training, and during and outside work) and be further developed as regards occupational content. One great advantage of the contextual acquisition of key qualifications is that, under the right learning conditions, the problem of transfer is reduced. This opens up possiblities for acquiring key qualifications during work based learning and for just-in-time learning in an active learning process.

Research Questions

Above a new definition of key qualifications is developed based on a literature search. Recent developments in theory and in business were taken into account. The next step was to verify the possibility of operalization of these key qualifications, their importance, and when and how these key qualifications can be acquired best in the opinion of experts. In this paper we present data to discuss the questions: What are the implications for HRD of the importance of key qualifications for employees that cannot fully be acquired and/or developed at school? And in what way can key qualifications be developed and acquired during a vocational career?

Method

Van Zolingen (1995) studied key qualifications with a policy Delphi (see Figure 2). In this study a number of key qualifications has been operationalized within the context of a few

Figure 2. Policy Delphi

pilot study 1
literature search
18 interviews with educational experts (10) and (8) job experts
selection of 25 key qualifications
pilot study 2
18 interviews with school-leavers holding entrance jobs:
8 service mechanics (school-leavers from MTS-E)
4 bank clerks (school-leavers from MEAO-C)
6 claims acceptors, claims assessors(school-leavers from MEAO-C)
first job related description of key qualifications
1st Delphi round
53 experts (educational experts and job experts) receive a questionnaire:
14 job experts from industry
10 educational experts from technical senior secondary education
18 job experts from banks and insurance companies
11 educational experts from commercial senior secondary education
feedback of the results to the experts
second job related description of key qualifications
2nd Delphi round
2 workshops with job experts and educational experts:
workshop of industry:
7 job experts from industry
3 educational experts from technical senior secondary education
workshop of banking and insurance
2 job experts from banks and insurance companies
7 educational experts from commercial senior secondary education

selected vocations (service mechanic in the industrial sector, bank clerk, and claims acceptor and claims assessor in the insurance sector) and a few selected specializations of senior secondary vocational education. The selected specializations were MTS-E, the specialization 'electronics' in technical vocational training on secondary level and MEAO-C, the

specialization 'commerce' in business training on secondary level. First the four occupations were selected after a number of interviews with experts in the first pilot study. Then in the second pilot study descriptions of the different key qualifications were made based on extensive interviews with school-leavers working in entrance jobs (not longer than 3 years after leaving school certificated). The third step was to send the 53 experts a questionnaire (32 job experts and 21 educational experts) with te descriptions of the key qualifications. People were qualified as expert when they had been working in this area for at least 2 years and had extensive knowledge of the job (the job experts) or of the differentiation in vocational education concerned (MTS-E or MEAO-C) (the educational experts). The experts were asked to polish the descriptions of the key qualifications, and to give their opinion on how important key qualifications are for the selected occupations and when and how they can best be acquired. In the fourth step, the workshop, job experts and educational experts discussed the differences in opinion and clarified some answers of the questions of the questionnaire from the first Delphi round.

Results

Table 1. When, at School or After School, can Key Qualifications Best Be Acquired According to Job Experts (expressed as percentages)

	Job Experts from Industry N = 14		*Job Experts from Banks* N = 14	
Key Qualification	*At School* (%)	*After School* (%)	*At School* (%)	*After School* (%)
general-instrumental dimension:				
-the ability to plan work	57	43	44	50
-the ability to handle information	72	21	71	14
-quality awareness	64	28	43	43
-commercial insight	21	64	50	29
-inter-disciplinary knowledge	78	14	50	29
cognitive dimension:				
-abstract thinking	29	7	65	7
-methodical thinking	57	14	65	22
-identifying and solving problems	57	36	44	28
-familiarity with material	85	7	-	-
personality dimension:				
-self-reliance	36	14	7	36
-sense of responsibility	36	14	28	7
-precision	71	0	43	14
-decisiveness	21	36	7	72
-exercising initiative	21	29	50	14
-coping with stress	14	36	21	42
-creativity	21	14	14	0
socio-communicative dimension:				
-social skills	35	21	50	14
-ability to express oneself in writing	64	0	93	0
-ability to express oneself orally				
-having a knowledge of modern languages	64	7	86	0
socio-normative dimension:				
-complying with safety measures	71	14	22	71
-readiness to take part in further training	14	42	14	43
-presentability	21	29	50	14
-knowledge of the organization	21	78	43	50
strategic dimension:				
- showing a critical attitude to work and one's own interests	28	43	29	50

When to Acquire Key Qualifications. An important result is that it appeared very well possible to operationalize and contextualize the different key qualifications for the selected occupations and to reach consenus with the experts about their descriptions. Another major finding of the policy Delphi is that the experts believe that secondary vocational education (both the theoretical and practical components) should play an important role in the acquisition of key qualifications As an illustration we present here a few data on the opinions of the job experts from industry (N = 14) and the job experts from banks (N = 14) derived from the questionnaire of the first Delphi round (Table 1). The experts were asked when the different key qualification can best be acquired: before school, at school (secondary vocational education), or after school during one's vocational career. In the table only the last two answering categories are reproduced. For example according to 72% of the job experts from industry en 71% of the job experts from banks the ability to handle infomation can very well be acquired at school (secondary vocational education). According to 21% of the job experts from industry and 14% of the job experts of banks the ability to handle information can better be acquired after leaving school (Table 1). The opinion of the educational experts (not presented here) is even stronger on this point. They are even more convinced than the job experts that many key qualification can best be acquired in school. Yet during the workshops it became clear that the experts hold that senior secondary vocational education can only provide a theoretical basis for a number of the key qualifications. These key qualifications are further developed in everyday practice on-the-job or with the help of coaching and training off-the-job during a person's vocational career. The key qualifications involved here are chiefly those of the personality dimension, the social-normative dimension, the strategic dimension and the key qualifications quality awareness and commercial insight of the general instrumental dimension. Key qualifications, which according to the experts during the workshops, are hardly acquired at school but are particularly obtained and/or developed further during a person's vocational career are: decisiveness, the ability to cope with stress, showing initiative, commerical insight, the ability to plan work, having knowledge of the organization, complying with security measures, a critical attitude to work and one's own interests and readiness to take part in further training.

How to Acquire Key Qualifications From the literature search and the discussions with the experts during the workshops we developed ideas about acquiring and further developing key qualifications during the vocational career. Acquiring and developing key qualifications by reflection upon core problems by employees seems to be a promissing new development (Onstenk et al. 1990). The idea originated in two different theoretical lines of thinking: the theory of contextbound cognition (Collins et al. 1989) and the "Handlungs' theory (Laur-Ernst, 1989). We will not elaborate upon these theories here. As we already mentioned employees have to be capable to handle unexpected and often complex problems in relation to products and customers. Onstenk named them core problems. Core problems are problems, an employee is confronted with frequently, that are characteristic for an occupation and of which an employee is supposed to find a solution and an approach. Core problems are about situations in which choices have to be made and in which more than one solution is possible. The employee is placed in a dilemma. The choices made in handling such a dilemma determine if he performs well. Usually many key qualifications are needed to handle core problems adequately. So in our opinion core problems are an outstanding example of for an occupation characteristic situations in which employees need (many) key qualifications.

Conclusions

This study has several implications for HRD practitioners. We will mention them in the context of the major results of the study.

A first major outcome of the study of Van Zolingen is that HRD practitioners should pay attention to key qualifications in corporate training, because key qualifications are acquired by employees during a proces of lifelong learning. In the opinion of the 53 experts some key qualifications are partly or wholly acquired at school. Some key qualifications can only be acquired during ones career and other key qualifications are theoretically acquired at school and have to be developed further during ones career. From our research it follows that HRD should pay extra attention to key qualifications such as: decisiveness, the ability to cope with

stress, showing initiative, commerical insight, the ability to plan work, having knowledge of the organization, complying with security measures, a critical attitude to work and one's own interests and readiness to take part in further training. These results indicate that the growth of new (structural) links between the educational system and organizations to allow a better coherence between initial education and further training is getting more important (see also Resnick & Wirt, 1996). Further HRD practitioners should pay attention to key qualifications that have to be further developed during an employees' career such as the key qualifications of the personality dimension, the social-normative dimension, the strategic dimension and the key qualifications quality awareness and commercial insight of the general instrumental dimension.

A second major outcome of the Delphi study is that with a new definition of key qualifications it is, in contrast with Mertens definition (1974), very well possible to operationalize key qualifications for vocational curricula and corporate training based on the information of school-leavers and experts collected during a policy Delphi. It must be mentioned that existing methods of analysing jobs and tasks are in our opinion to little directed to the detection and operationalization of key qualifications, because they fragment jobs in very little units of knowledge and/or skills (Carlisle, 1986). Characteristic of key qualifications is that they are broader and more elusive than pure knowledge or pure skills. We think that for HRD practitioners it is very usefull to apply the Delphi method supplemented with 2 two pilot studies to analyse jobs next to the more simple existing job analysis methods to identify en describe key qualifications. Yet we are not fully satisfied with this method because key qualifications form a 'whole' when they are applied in a job and this whole differs in shape when different combinations of key qualifications are applied in different situations by an employee. That is why our attention is shifting now to the possible role of core problems in identifying and describing key qualifications in the context of an occupation (Blokhuis & Van Zolingen, 1997).

This role of core problems is the third outcome of the study that is important to HRD practitioners and managers. We think that HRD practitioners and managers should realise that acquiring key qualifications can be stimulated by adequate job design characterized by confrontation with and reflection upon core problems by employees during work or training courses. In the literature Brater & Bauer (1990) point out that new developments in organizations may have a positive influence on the personal development of employees. The broadening of tasks and reponsibilities, that follow downsizing or lean production create in their opinion opportunities for employees to develop their abilities [read: key qualifications]. Yet others are of the opinion that many new developments in organizations only put more pressure on employees who have to be extremely flexible, are fully responsible for their employability and must stay motivated to keep learning (Geißler, 1990). We have the opinion that it is possible to adopt a middle course by designing jobs in such a way that employees are confronted with core problems, that they get the full responsibility to handle them and (this is essential!) that they get enough possibilities to reflect upon core problems to broaden their experience and to learn to handle core problems adequately. The role of HRD practitioners will in our opinion on the one hand be to learn line managers how to coach employees in reflection upon the handling of core problems and on the other hand to identify core problems and to create training courses containing core problems and pay attention to the key qualifications needed to handle these core problems. These training courses should not only be directed to individual learning but also on finding solutions for core problems in [interdisciplinary] groups. In our opinion it is a very important research topic for the near future to develop a method to identify and describe the core problems of a job (Blokhuis & Van Zolingen, 1997).

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Analyzing Career Paths of Corporate University Senior Training Executives

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This article reports the interviews of fifteen senior training executives from Fortune 500 corporate universities describing their career paths, education, career obstacles, and essential personal and professional characteristics and competencies. This study will be of interest to those aspiring to an executive position in training, organizations developing a senior training position, and universities guiding Human Resource Development professionals.

Throughout the working lives of employees, in any organization, the employees are constantly maneuvering through patterned sequences of roles or positions which most often have something to do with work content (Walker, 1992). The process of moving through these roles is the basis of a *career path*. In order for a person to have a career path, there is no need for the succession of jobs to be planned or to be written. In other words, every employee has what amounts to a career path as they proceed through a succession of roles (Walker, 1992).

This study is a contribution to the field of career research, which is an area of study whose base is in the interpretation of the relationship between the individual and the organization (Arthur, Hall, & Lawrence, 1989). The aim of the study, however, is to describe the sequence of jobs individuals hold in the area of training as well as to analyze the components and competencies which comprise and contribute to their working lives (a basic definition of a career (Hall, 1976)). This investigation is a descriptive, status study that examines the career paths and certain related factors of senior training executives.

Most Human Resource Development professionals appear to be either focused on the area of training and development in the business and industrial sector or the area of training and development in formal higher education (Wallington, 1981). Wallington determined that most Human Resource Development professionals work exclusively in one of these areas and not the other. However, he concluded that it would be ideal for the Human Resource Development professional to gain an understanding of both of these areas. A trend in the field of training has been occurring the past decade in which individuals are developing this dual understanding (Bassi, Benson, & Cheney, 1996); and consequently, curriculum has been developed that has produced the professional trainer and the Human Resource Development specialist, and ultimately the senior training executive.

By examining their career paths, a certain amount of detail has been identified about the career development of senior training executives. The importance of this study is apparent in several different ways. The findings of the study may be used to inform and guide individuals who aspire to become a senior training executive of an organization. The study's results will show an individual the different routes that senior training executives have taken to achieve their current positions. For example, if the findings of this study suggest that an individual who has worked in line positions or other positions prior to becoming senior training executive, and that they found it helpful to follow this type of path because it made their training tasks more effective since they have actually "been there", then this information will benefit the aspiring senior training executive. Also, the study will help companies who seek to hire a senior training executive. It will aid companies in personnel selection within their organization as they use the study findings to compare applicants' career paths. Also, the study will be useful to universities wishing to offer programs which prepare individuals for careers as training executives. Finally, the study will build and add to the already existing studies and information concerning trainers and Human Resource Development professionals.

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Research Questions

The study described in this article centered on examining the career paths of senior training executives of corporate universities. The following research questions were addressed:

1. What are the educational backgrounds of senior training executives at corporate universities?
2. What is the job succession of a senior training executive?
3. What do senior training executives perceive to be important competencies and characteristics in their career advancement?
4. What are the major obstacles encountered by senior training executives in their career progression?

Methodology

Research Design. The researcher used a descriptive survey design for this study. An interview method was used to gather information from senior training executives at corporate universities via the telephone and fax. By using this interview method, there was a greater chance of receiving a 100 per cent response rate and achieving more in-depth data as well as the added opportunity to ask follow-up questions.

Subjects. The target population for this study was all senior training executives at corporate universities. The accessible population, from which the sample was drawn, included senior training executives at Fortune 500 corporate universities. A corporate university is defined as "an umbrella for a company's training programs which embody a philosophy of continuous learning and ultimately a lever for cultural change. Furthermore, corporate universities represent a best in class effort to train all levels of workers in the skills, knowledge, and competencies they will need to be successful in their current jobs and be able to adapt to future job requirements" (Meister, 1994). The senior training executive at these universities is defined as the individual ultimately responsible for the development and implementation of training. A preliminary study had been conducted in order to identify the Fortune 500 companies that have a corporate university. From those companies who responded to the preliminary survey and identified themselves as having a corporate university, executives from fifteen companies agreed to participate in this study. Contacts were made through personal referrals, literature review, and "cold calls".

Limitations. This study was concerned with the career paths of fifteen senior training executives of organizations which have corporate universities. Given the relatively small number of participants, caution should be exercised in generalizing study findings to organizations and careers outside of the study.

Prior to beginning the interview process with study participants, all of the companies were categorized according to their type of businesses, using Standard Industrial Classification codes. Of the fifteen companies in the study, two were National Commercial Banks (13.3%) and two were Groceries and Related Products (13.3%). The eleven remaining companies each represented one of the following categories, each accounting for 6.6% of the total population: Newspapers, Variety Stores, Bank Holding Companies, Pressed and Blown Glass and Glassware, Eating Places, Industrial and Commercial Machinery, Electronic Parts and Equipment, Personal Credit and Savings Institutions, Electronic Computers and Computer Terminals, Office Machines, and Motor Vehicles and Car Bodies.

Instrumentation. Data for this study was collected through the use of an interview questionnaire. The questionnaire was developed by the researcher in collaboration with three other graduate assistants and the research advisor. The questionnaire contained four sections that aimed to identify the senior training executive's educational background, career path information focusing on their previous positions, special competencies/characteristics they

believe have positively affected their career paths leading to their current positions, the top three to five characteristics they believe have helped them to progress in their field, and finally any possible obstacles they may have encountered as they have proceeded in the succession of their professional experiences.

Data Collection. The researcher began by identifying the senior training executive at each corporate university through personal referrals, literature review, and "cold calls". An interview guide was designed to be used with all fifteen of the subjects in the study. Each senior training executive was called at his/her office in order to conduct a structured interview via the telephone. On average, each participant's office was called twice before making contact. The average length of each interview was approximately ten minutes. The interviews were conducted between June 23, 1997 and July 18, 1997.

Data Analysis. With respect to the data analysis of the quantitative portion of the study, the researcher analyzed the results using descriptive statistics to determine the frequencies, median, mean, mode, and percentage of corresponding responses. For the open ended questions, a classification system was set up to analyze the responses.

Results. The results of this study are discussed in four major sections: participants' Career Path Information, Education of study participants, essential Competencies and Characteristics identified by study participants, and Obstacles encountered by participants as they have proceeded in their succession of professional experiences.

Current Positions. The fifteen study participants were grouped according to their current position title. Three of the participants were called Director of "*" University (20%). Two were called Director of Training (13.3%). The following titles each accounted for one of the remaining participants (each title representing 6.6% of the total population): Senior Training Consultant, Manager of Education Systems, Manager of "*" Training Institute, Vice President of Planning and Development, Director of Human Resources Effectiveness/Education, Manager of Training and Organization Development, Director of Leadership Development, Vice President of Training and Development, Manager of Training Delivery, and Assistant Director of Training.

Through the identification of current position titles, it became apparent that the individuals who were responsible for the development and implementation of training at corporate universities had varied titles, even though their specific job duties and responsibilities were similar. The names of specific companies within the participants' titles were withheld in order to ensure confidentiality.

The overall number of employees that each of the participants currently supervised varied greatly. The average number of employees that each senior training executive supervised was 45 employees. The range of number of employees supervised was from 9 employees to 200 employees. The standard deviation was 47.1.

The fifteen senior training executives who participated in the study were asked the number of years they have spent in their current positions. The range of years spent in current positions was 2 months-9 years. The mean average was 3.5 years, with a standard deviation of 2.44 years.

Previous Positions. With regard to the previous positions held by senior training executives, they were asked to indicate the positions that they believed related to their achieving their current positions. It should be noted that as the researcher talked with the participants, they indicated that they wanted a focused conversation which dealt with only those jobs they believed helped them to obtain their current positions. In other words, they did not want to talk about their entire job history. In order to accommodate their desire to be efficient in interview discussions, they were asked only about training related positions. They were asked also to identify any non-training positions or experiences they had which they believed to be particularly pertinent to achieving their current positions; and, usually these assignments where the factors which initially qualified them to enter training. Their responses are as follows:

Respondent I. Prior to his initial training assignment, he worked as a line operations manager in the same industry that he is in currently. At that company, he was promoted to

Director of Employee Development for "*" Management Institute where he served for five years. The next training related position held by this respondent was Vice President of Training and Development at another company, where he stayed for three years. Currently, Respondent I is the Director of "*" University at another company, and has been in this position for a total of three years.

Respondent II. Prior to her initial training assignment, Respondent II received a degree in education. Her first training related position was as a Trainer for two years. She then was a Senior Trainer for an additional two years and has held her current position as a Senior Training Consultant for nine years. All her training related employment has been with the same company.

Respondent III. This respondent was prepared in industrial education and curriculum design. He entered the training field as an Educator and Trainer. Most recently he has been Manager of Training and Development for a specific division of a company where he stayed for six years. Next, he became the Director of "*" University at another company, for four years. His third training related position, which he was in for five years at another company, was as Director of Executive Development. He has now been the Director of "*" University for one year at yet another company.

Respondent IV. Prior to his initial training assignment, Respondent IV was a Retail Systems Specialist. He became Manager of an Information Center and was a Computer Operations Trainer for six years. He is now the Manager of Education Systems, where he has been for three years. These assignments have all been at the same company.

Respondent V. Respondent V began his career in the company warehouse as a laborer. He was promoted to his first training related job as an Assistant District Operating Manager for two years. The next training related position was as District Quality Manager for two years. He is now the Director of Training for "*" University and has been in this position for two years. All these positions have been with the same company.

Respondent VI. Respondent VI was a journeyman machinist which helped gave him a technical background that he utilized and to help him qualify for his first training related position as a Training Instructor or Technical Trainer for three years. An additional training related position he held was as Corporate Manager of Management Development for four years. His third position was as Manager of Human Resources Planning for five years. He has been in his current position for four years as Manager of "*" Training Institute. All his training positions have been with the same company.

Respondent VII. With a degree in education, Respondent VII began his career as a Trainer for three years. The next position was as a Training Specialist and then a Senior Trainer for four years at another company. He then was a Training Manager for four years at another company and is currently with the same company as the Vice President of Planning and Development and has been in this position for a total of seven years.

Respondent VIII. Respondent VIII was prepared in education and earned a doctorate degree. She began in the field of training as an Independent Training Consultant for six years. The next position was as Corporate Head of Management Leadership Training for eight years. She is now the Director of "*" University and has been in this position for two years. All of these positions have been with the same company.

Respondent IX. This respondent was prepared in education and began her career in what she indicated as her first training related position as Manager of Organization Consulting for three years. The next training related position was as Manager of Strategic Corporate education for two years. The next position was as Director of Corporate Education for three and one half years. She has been in her current position as Director of Human Resources Effectiveness and Education for two years. All of these positions have been with the same company.

Respondent X. Respondent X began as a Manager Trainee with the same company that he is with currently. This led to his first training related position as a Field Service Manager for three and one half years. His next position was as a Staff Director for one and one half years. He is currently the Director of Training for "*" University and has been in this position for two and a half years. All of his training related positions have been with the same company.

Respondent XI. Prior to entering the training field, this respondent worked as an Assistant Director of Student Activities. Her first training related position was as Manager of Business Education for one year, at another company. She then was a Training Specialist for three years at another company, followed by a Director of Human Resources for six years at another company. She has been in her current position as Manager of Training and Organization Development for six years at still another company..

Respondent XII. Respondent XII initially qualified to enter training by working as Manager of Documentation in Training and Development for three years. He held an additional training related position as Manager of Field Training for three years. He currently holds the position of Director of Leadership Development and has been in this position for four years. All of these positions have been with the same company.

Respondent XIII. This respondent initially qualified to enter training as she worked in human resources as an interviewer. Her first training related position was as a Trainer for two years. A second training related position held by this respondent was as Director of General Management Training Programs for one year. A third position was as Director of Human Resources for four years. She is currently the Vice President of Training and Development and has been in this position for six weeks. All of these positions have been with the same company.

Respondent XIV. Respondent XIV believed that his experience in sales qualified him for his first training related position as an Instructor for "*" Company. His next training related position was a Manager of Training and Development where he stayed for fifteen years. He is now a Manager of Training and Delivery where he has been for nine months. All of these positions have been with the same company.

Respondent XV. Respondent XV stated that her qualifying employment was in the area of recreation management. This led to her first training related position as a Trainer for eleven years. She then changed companies to become a Director of Training for eight years. At another company, and currently, she is the Assistant Director of Training at "*" University and has been in this position for five years.

The above career path information about each of the fifteen respondents indicates that only a few of the senior training executives have a history of job changes in their training related careers. Participants, on average, indicated that they have had three or four positions in training.

The average number of years that the participants spent in their first training related job was 4 years. The range for this category was 1-11 years, while the standard deviation was 2.5 years. In addition to their first training related jobs, all of the participants, except for one, have had additional training related jobs. Six out of the fifteen participants have had a second additional training related position prior to achieving their current position. With regard to the number of years that the participants have spent in additional training related positions, the average was 6 years. The range for additional training related jobs was 1-15 years, and the standard deviation was 3.45 years. Education. The fifteen senior training executives were asked several questions about their educational backgrounds. They were asked to indicate their educational level or degrees they have earned. In addition, they were asked to specify the fields in which their degrees were earned. Also, they were asked to indicate the number of college credit semester hours they have had in Human Resources and/or Training.

Eight of the participants, (53.3%), have achieved a Bachelor's degree. The following fields were identified by the participants who had earned up to and through a Bachelor's degree: Education, Business Data Processes, Biology, Industrial Education, Business Administration, Business Management, and Accounting.

Of the remaining participants, five (33.3%) earned Master's degrees in the following fields: Business Administration, Organization Development, Organization Behavior and Adult Education, Curriculum Development, and Electrical Engineering. Two participants (13.3%) earned Ph.D.'s in Sociology.

The number of college credit semester hours earned in Human Resources and/or Training by the fifteen Senior Training Executives ranged from zero to sixty. Seven of the participants had zero college credit semester hours in Human Resources and/or Training. One participant had earned three hours, another completed six hours of Human Resources/Training courses, and

another completed 12 hours of credit. Two of the participants earned 15 hours of credit, while the remaining three participants earned 30 hours, 40 hours, and 60 hours, respectively, of college credit. The mean for the number of college credit semester hours earned in Human Resources and/or Training was 12.1. The range was 0 hours to 60 hours, while the standard deviation was 18.1.

Competencies. The senior training executives were asked to identify any special competencies which they believed had positively affected their career paths leading to their current positions. A total of thirty competencies were identified by the fifteen participants.

When analyzing this data, it became evident that in recording the responses of each respondent who had been asked to indicate special and important competencies and characteristics, an additional step which asked the respondents to review and refine the combined list of responses might prove informative. Respondents were given the combined lists of competencies and characteristics and asked to identify the five in each list considered to be absolutely essential in career progression in the field of training. Thirteen responses were received to the second survey.

The following were reported in response to which Competencies are absolutely essential: ten respondents (77%) indicated interpersonal skills, eight (62%) indicated communication skills, six (46%) indicated basic understanding of business, as well as credibility, five (38%) indicated persistence and hard work, continual learning, flexibility, and creativity, four (31%) indicated honesty, three (23%) indicated willingness to change, technical understanding, and innovative, and two respondents (15%) indicated humor.

Characteristics. In addition to the question regarding competencies, the participants were also asked to indicate the most important personal characteristics that had helped them to progress in their field. The fifteen participants identified a total of 26 characteristics that they thought were important to the professional working in the area of Human Resources and Training.

The following were reported in response to which Characteristics are absolutely essential: nine respondents (69%) indicated *interpersonal skills*, seven (54%) indicated *communication skills*, six (46%) indicated *basic business knowledge, leadership skills, and consultation skills*, five (38%) indicated *understanding of business/instructional technology, knowledge of curriculum design, and project management skills*, four (31%) indicated *desire for improvement*, as well as *coaching skills*, three (23%) indicated *a systems view on how things operate*, two (15%) indicated both *facilitation skills* and *being visionary and proactive*, and one respondent (8%) indicated *public relations skills*.

Obstacles. The fifteen senior training executives were asked to indicate any career obstacles which they had encountered as they have proceeded in their succession of professional experiences. Only nine of the participants reported having encountered obstacles throughout their careers. *Organization politics* was identified by two of the participants as being the greatest obstacle encountered. This obstacle (*organization politics*) accounted for 22.2% of the total responses. The remaining obstacles each received one response; each accounting for 11.1% of the total responses. The following obstacles were indicated: *resistance to new training within the organization, no focus on growth by the company, not having a formal education, no place for training in the organization, having a formal education/advanced degree, training is handled as expense not an asset,* and *being a female in a trucking-based industry.*

Discussion

There appeared to be patterns in the careers of the respondents. The corporate university senior training executives participating in this study have been in the field of training for an average of twenty years. The majority of the participants had been in their current positions fewer than six years. It became apparent that only a few of the senior training executives have had significant positions outside of the field of training or company job changes in their training careers. The

participants, on average, indicated that they have had three or four positions in the field of training. Furthermore, the participants' responsibilities were very similar, due to the fact that they all work within corporate universities. The majority of the senior training executives had established tenure with their organizations. In other words, they have had a succession of jobs in training in the same organization.

Although the senior training executives represented a variety of industries, and the titles of the senior training executives and the number of employees that each participant supervised all varied, their basic missions and responsibilities were similar in that they were accountable for the overall development and implementation of training for their organizations. It should be noted that one cannot be sure by title alone what the level of the assignment is in the training position hierarchy.

With respect to the education of senior training executives, all of the participants had a minimum of a bachelor's degree. Nearly half had either a master's degree or a doctor's degree. A common element in their education was that many seemed to have studied Education at some point while earning their degrees. Although all of the fifteen participants held college degrees, seven of the participants had not received formal college credit in Human Resources and Training. Moreover, three of the participants did have a great deal of college credit in this area. A great disparity exists between the level of formal education in Human Resources and Training among senior training executives.

The participants identified a number of key competencies which they thought had positively affected their career paths leading to their current positions and further identified those they considered to be absolutely essential in their careers. In addition to the key competencies identified by the participants, certain essential characteristics were also noted. Interpersonal skills, communication skills, and understanding business were mentioned as being important in both categories when participants were asked about important competencies and characteristics.

The senior training executives involved in this study identified only a few obstacles which they have encountered in their career progression. This small number of obstacles seemed reasonable in organizations which have successful corporate universities.

Implications/Recommendations

The findings from this study will be useful to individuals who are interested in pursuing careers in the field of training. A review of the career paths of the participants may be helpful in guiding individuals in terms of planning their future objectives. One may find it beneficial to study Human Resources and Training at the university level, to obtain employment experiences in training related positions, and to develop competencies and characteristics deemed important by incumbent senior training executives. Also, the individual who seeks to develop a career in training should recognize that seniority in an organization appears to be a factor in job promotion and in achieving the position of senior training executive.

The study will also help organizations who are interested in executives currently managing corporate universities. Organizations may find the career preparation of senior training executives a useful reference when establishing position descriptions for their particular organization. Employers should be able to recognize the patterns of career development of successful senior training executives. This information may serve as a blueprint for the career development of future leaders in training. In addition, understanding the desirable competencies and characteristics as expressed by successful senior training executives should prove useful in identifying candidates for senior training executive responsibilities.

A review of the information in this study may be of value to universities in developing curriculum for both aspiring and incumbent training executives. Human Resource Development departments at universities can examine the competencies and characteristics identified by senior training executives, and build units of instruction and courses that focus on any number of these. By doing this, individuals participating in the university programs will be more likely to develop the key competencies and characteristics that they need to succeed in the field of Training. In

identifying a potential senior training executive or in training a potential senior training executive, special attention should be given to the identified essential competencies and characteristics.

University Human Resource Development programs should assist student employment experiences in the field of training by providing internships and job placement opportunities. University liaison with business and industry training executive resource persons may be developed by encouraging training executives to participate in human resource development program advisory board, by giving guest lectures, or by teaching as adjunct instructors.

Knowledge of desired industry skills, competencies and characteristics is useful in developing objectives in a training program. There may be some value in professional training organizations defining training positions so that organizations may elect to utilize standard position classifications for their training executives. Professional organizations' credit and non-credit training programs should incorporate the topics identified by this study in their professional development activities.

Additional research should be done in this area among senior training executives in organizations with corporate universities. While fifteen organizations were selected for this study, a recent study showed that a total of twenty Fortune 500 companies have corporate universities.

The participants of this study are an important resource to those interested in Human Resource Development. They should be nurtured and utilized thoughtfully so as to maintain good future relations and lines of communication.

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Preparing Tomorrow's HRD Professionals: Perceived Relevance of the 1989 Competency Model

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This article follows up on a 1991 study of competencies for trainers (Leach, 1993). University Council of Vocational Education faculty were asked to provide their perceptions of the importance of competencies and the extent to which these competencies are currently included in their HRD professional preparation programs. Of the 25 competencies used for both studies, 23 were rated as important in 1997, and 17 of these were perceived to be less than adequately covered in course work.

The field of vocational and technical education has evolved significantly in the past decade to place greater emphasis on preparation of individuals for employment in business and industrial settings. In fact, several vocational and technical education departments in prominent universities have changed their names to embrace the human resource development role. Concurrent changes in the work place have had an impact on the roles of trainers in business and industrial settings and the competencies required of trainers to perform those roles effectively (Argyris, 1994; Baylen, Bailey, & Samardzija, 1996; Rhinesmith, 1994). The demand for employee training and development continues to increase. It is estimated that U.S. organizations will spend approximately $60 billion on formal training in 1997 -up from $43.2 billion in 1991 (Industry Report, 1997).

While many recent studies have addressed the issue of required competencies of trainers (Hodkinson, 1994; Kaeter, 1995; Mager, 1996; Marquardt & Engel, 1993; Olson, 1994), there does not appear to be consensus regarding what new skills are required for an HRD professional. The competencies identified in *Models for HRD Practice* (McLagan, 1989) appear to continue to provide the basis for preparation of HRD professionals. In 1991, Leach (1993) conducted a study published in *JVTE* to determine how vocational faculty at the university level were addressing the emerging need to prepare training professionals for business and industry. Respondents in that study perceived that 21 of the 25 competencies for trainers that were defined by McLagan in 1989 were important for graduates of their programs. Thirteen were considered important but not adequately covered in the curriculum taught by faculty in departments belonging to the University Council of Vocational Education (UCVE). The competencies used for that study were identified in *Models for HRD Practice* (McLagan, 1989). Although the study identified thirty-five competencies, thirteen were omitted because they were deemed to be too vague or too complicated to be accurately described on the questionnaire. All of the competencies except Evaluation skill, Media selection skill, and Budget and resource management skill were derived from the *Models for HRD Practice* study. These three competencies were included because they have been identified as important in other prominent research in the field (International Board of Standards for Training, Performance, and Instruction, 1988; McLagan, 1983).

- *Technical Competencies* - Adult learning understanding, Career development theories and techniques understanding, Competency identification skill, Computer competence, Electronic-systems skill, Evaluation skill, Media selection skill, Objectives preparation skill, Training and development theories and techniques, Training and development theories and techniques
- *Business Competencies* - Budget and resource management skill, Business understanding, Organization behavior understanding, Organization development theories and techniques

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- *Interpersonal competencies* - Coaching skill, Feedback skill, Group-process skill, Negotiation skill, Presentation skill, Questioning skill, Relationship-Building skill, Writing skill
- *Intellectual Competencies* - Data-reduction skill, Information-search skill, Visioning skill

Given the increased demand for trainers and for training functions in business and industry (Holton & Trott, 1996; Industry Report, 1997; Lynch & Cross, 1995; Mager, 1996; Manz & Sims, 1995; Robinson & Robinson, 1995) and the changes in the field of vocational and technical education (Carnevale & Stone, 1995; Rifkin, 1995; Tobin, 1996), the question arises as to the extent to which this classic list of competencies remains the basis for academic programs. Thus, using the 1989 model (McLagan, 1989) as a framework, this follow up study was conducted to determine what, if any, changes have occurred in terms of faculty members' perceptions of the importance of these competencies and the extent to which these competencies are covered in their curricula.

Review of Literature

A wealth of literature (Carnevale & Stone, 1995; Murnane & Levy, 1996; Rifkin, 1995; Tobin, 1996) addresses the ever-evolving trends in business and industry that result from changes in the global market place and in technology. Additional literature is beginning to address the need for training that will keep up with workplace evolutions (Holton, & Trott, Jr., 1996; Lynch & Cross, 1995; Manz & Sims, 1995; Robinson & Robinson, 1995). However, what has to emerge concurrently is sound practice for educating trainers who will design, implement, and conduct training in the business and industrial environment.

The academic community must also address the value and relevance of degree programs that prepare trainers to take their place in business and industrial environments (Baylen, Bailey, & Samardzija, 1996). Kaeter (1995) presented cases both for and against degrees in human resource development (HRD). Arguments on the side against degrees for HRD professionals suggested that preparation of trainers within academic institutions is too theoretical and not realistic enough. Trainers and executives cited in the article indicated that degrees in HRD do not prepare trainers for their "multidisciplinary roles" or prepare them with a whole set of skills they need--including flexibility, the ability to deal with personalities and politics in the work place, and the ability to work with intense deadline pressures (p. 68).

Kaeter's (1995) primary argument is that, because HRD is still in its infancy, confusion still reigns in the academic world that deals with HRD training. Even though the American Society for Training and Development has identified 11 subject areas to help prepare a person for a career in training (Kaeter, 1995), many programs in these areas are still "vaporous" (p. 74). The 11 subject areas identified are: administrative/educational leadership, adult education, career development, human resource development, human resource management with an emphasis in human resources development, industrial psychology, instructional design and development, instructional technology, organization communications; organization development, and vocational/technical education. Kaeter concludes by saying that these areas of study do not guarantee that graduates of these programs will come out with specific sets of competencies.

While there may be some consensus on areas of study for trainers, no definitive model for the emerging role of trainers (McLagan, 1996), for the competencies of trainers, or for levels of education required for trainers seems to have emerged since the 1989 model. Although Mager (1996) described what trainers of the next century should look like, he did not further define these desired characteristics in terms of specific competencies that would serve as a model for preparing trainers. The characteristics he suggested are: performance-oriented, technically skilled, socially skilled, self-employable, bilingual, and internationally qualified. Like many other descriptions of trainers, these characteristics, for the most part, closely parallel the four major areas of the 1989 model (technical competency, business competency, interpersonal competency, and intellectual competency), and Mager's descriptions reiterate much of what is already known about desirable competencies for trainers. However, the attention to bilingualism and international experience clearly reflect the more current trend to address more global issues in work force development.

Another article (Marquardt & Engel, 1993) related to competencies of trainers also focuses on needs that relate to the more global work place. Marquardt and Engel state that the competencies that make trainers effective in corporate America do not necessarily guarantee effectiveness in other cultural settings. These writers have identified 16 competencies (arranged within the areas of attitudes, skills, and knowledge) they believe will contribute to the success of HRD practitioners in cross-cultural settings. The three major groupings of these competencies (attitudes, skills that empower, and important areas of knowledge) address many of the same areas as the four major groups used by Leach in 1991. However, the individual competencies identified by Marquardt and Engel seem more interpersonal and cultural in nature than those competencies by ASTD in 1989.

Even amidst a contemporary educational environment rampant with the search for standards of performance at all levels, no clear model seems to have emerged to replace the competencies as they were defined in earlier studies and used by Leach in the 1991 study of competencies of trainers. While the role of trainers may change due to the changing context of the business environment (Argyris, 1994; McLagan, 1996; Rhinesmith, 1994), there is no indication that the previously identified competencies will be less valued. Even if they are supplemented with greater ability to function in cross-cultural roles and other abilities, the four areas of competency and most of the individual competencies still bear a great deal of relevance to competencies described in later studies. Thus, researchers determined that the use of this model was still beneficial for determining what competencies are important and to what extent they should be covered in academic course work related to the preparation of trainers.

The Problem

As training and development programs become increasingly prominent in business and industry and vocational teacher education programs take on the expanded role of preparing professionals for training and development positions, vocational teacher education programs must change accordingly. It is imperative that the evolving curriculum embrace the knowledge base and skills required to perform training functions, which continue to increase. The challenge is to validate what is important to include in the preparation of trainers for business and industry and to modify curriculum in ways that respond to changes and needs of the work place.

Purpose of the Study

The primary purpose of this study was to determine the extent to which vocational teacher education programs include appropriate knowledge and skill training to successfully prepare vocational educators for training positions in business and industry. More specifically, the intent was to assess the perceptions of vocational teacher educators regarding the importance of the competencies identified in the HRD competency model (McLagan, 1989) for graduates of their vocational teacher education programs. In addition, the vocational teacher educators were asked to provide estimates of the extent to which these competencies are covered in students' course work. The following research questions related to this purpose were addressed:

1. To what extent are the competencies considered important for program graduates?
2. To what extent are the competencies currently covered in course work?
3. Have perceptions regarding the importance of the competencies and the extent of coverage of the competencies changed since 1991?
4. Are there differences in perceived importance and perceived extent of coverage of the competencies between graduate courses and undergraduate courses?

Research Procedures

Participants. While it is recognized that the preparation of trainers is not limited to universities and is not exclusively conducted by vocational faculty, most university vocational and

technical education departments place graduates of their programs in training positions in business and industry (Leach, 1993). Thus, participants selected for this study were faculty who teach in programs in institutions that are members of the University Council for Vocational Education (UCVE). During the spring of 1997, a survey instrument was sent to all faculty members from the nineteen UCVE institutions listed in the 1996-97 UCVE directory.

Because it is difficult in many institutions to identify clear distinctions between traditional vocational education areas and human resource development, it was decided not to eliminate any faculty from any program who were listed in the UCVE directory. Thus, the survey was mailed to all 430 faculty members within related UCVE departments. It was felt that faculty members were better able to eliminate themselves from participation in the study based on what they know about the content and purpose of their specific programs than to eliminate them based on affiliation with specific program titles.

Selection of participants for the 1997 study was slightly different from the 1991 study. In the former study, department chairs/heads from each of the UCVE institutions were contacted and asked to identify appropriate faculty members or program heads representing each vocational curriculum housed in their department (i.e. agriculture, business/marketing, health, home economics, industrial education, and technology) to complete the questionnaire.

Instrumentation. The instrument for this study was structured like the 1991 survey in order to accommodate comparison of perceptions of the same issues, namely the importance of the competencies and the extent to which they are covered in the curriculum. A three-column questionnaire was developed for the study. A list and brief definition of each of the twenty-five competencies to be assessed was provided in column two, in the middle of the questionnaire. In column one, respondents were asked to estimate extent to which each competency is covered in students' course work. In column three, respondents were asked to rate the importance of each competency for graduates of their vocational teacher education program. Based on comments from the 1991 study, the 1997 instrument also provided for separate responses for undergraduate and graduate studies.

Data Analysis. Using a four-point Likert-type scale, respondents were asked to indicate in column one of the questionnaire the extent to which they perceived each of the competencies is covered in students' course work. Respondents were asked to rate each competency as either not covered (1), covered somewhat (2), covered adequately (3), or covered extensively (4). In column three, respondents were asked to rate the importance of each competency for graduates of their programs as of either no importance (1), not very important (2), somewhat important (3), or very important (4). Competencies that received a ranking of □ 3.0 were considered important and adequately covered. The significance level for the study was set at $a = .05$.

Of the 430 surveys mailed, 164 were returned. Twenty-four respondents indicated that they did not have the knowledge or current experience of the HRD field to respond adequately to the survey items. Thus, of the 164 returned surveys, 137 were usable. Of the 137, 117 contained responses for both graduate and undergraduate courses; 17 contained responses for graduate courses only; and 7 contained responses for undergraduate courses only.

Findings

Based on responses from the 1997 survey, the competencies for trainers that were defined in 1989 are considered even more important than in 1991, yet many of them are perceived as less than adequately covered in both graduate and undergraduate studies. Skills that have increased significantly in perceived importance since the 1991 study are the technical skills of research and electronic-systems and the intellectual skill of visioning.

Table 1 provides a listing of all competencies included in the study. Twenty-three of the 25 competencies were ranked as important (□ 3.0) in the 1997 study. Of the 23 competencies perceived as important, 17 skills were also perceived as not adequately covered in course work (< 3.0): adult learning understanding, career development theories and techniques understanding, competency identification skill, computer competence, electronic-systems skill, evaluation skill, media selection skill, training and development theories and techniques understanding, research skill, organization behavior understanding, organization development theories and techniques, coaching skill, feedback skill, negotiation skill, relationship-building skill, data-reduction skill, and visioning skill. This figure of 17 competencies considered important but not adequately

covered compares to the 1991 study figure of 13 competencies that were considered important but not adequately covered.

Table 1.
Importance of Competency and Extent of Coverage as Perceived by Both 1991 and 1997 Respondents

Competency	Importance of Competency		Extent of Coverage	
	1991 Mean and Standard Deviation (n=25)	1997 Mean and Standard Deviation (n=137)	1991 Mean and Standard Deviation (n=25)	1997 Mean and Standard Deviation (n=137)
Writing skill *	3.69	3.74	3.01	3.07
	.54	.55	.65	.90
Presentation skill *	3.76	3.65	3.60	3.13
	.42	.70	.49	.96
Computer competence	3.55	3.61	2.82	2.75
	.55	.73	.81	.97
Objectives preparation skill *	3.75	3.53	3.61	3.19
	.43	.75	.56	.95
Information-search skill *	3.40	3.51	2.85	3.00
	.70	.68	.71	.80
Group-process skill *	3.53	3.50	2.91	2.86
	.60	.65	.84	.93
Questioning skill *	3.61	3.50	3.24	2.84
	.59	.65	.75	.89
Feedback skill	3.54	3.45	3.04	2.78
	.55	.68	.72	.89
Adult-learning understanding	3.29	3.43	2.52	2.70
	.71	.78	.77	.98
Relationship-building skill	3.53	3.43	2.94	2.64
	.64	.68	.94	.93
Evaluation skill	3.52	3.42	2.85	2.74
	.64	.72	.74	.90
Visioning skill	3.12	3.36	2.25	2.37
	.79	.70	.73	.86
Data reduction skill	3.16	3.31	2.45	2.57
	.72	.77	.70	.83
Coaching skill	3.41	3.31	2.89	2.56
	.64	.80	.85	.98
Media selection skill	3.37	3.28	3.08	2.76
	.58	.73	.69	.84
Competency identification skill	3.50	3.24	3.04	2.80
	.72	.89	.81	.99
Research skill	2.75	3.19	2.32	2.79
	.80	.70	.87	.71
Negotiation skill	2.95	3.18	2.09	2.18
	.80	.90	.79	.96
Organization behavior	3.06	3.17	2.36	2.49
	.84	.88	.91	.99
Career development theories and technical understanding	3.04	3.13	2.36	2.41
	.62	.83	.67	.96
Training and development theories and techniques understanding	3.22	3.12	2.66	2.72
	.78	.97	.93	1.03

Competency	Importance of Competency		Extent of Coverage	
	1991 Mean and Standard Deviation (n=25)	1997 Mean and Standard Deviation (n=137)	1991 Mean and Standard Deviation (n=25)	1997 Mean and Standard Deviation (n=137)
Electronic-systems skill	2.78	3.10	2.02	2.31
	.82	.95	.80	.95
Organization development	2.79	3.03	2.22	2.41
theories and techniques	.86	.87	.86	.94
Budget and resource management	3.02	2.93	2.16	2.09
skill	.84	.90	.82	.84
Business understanding	2.91	2.87	2.31	2.25
	.89	.91	.89	.93

Notes: Competencies are listed in rank order by importance as perceived in the 1997 study.
An * indicates that the competency is considered adequately covered in course work.

On the basis of two-tailed t-tests, three competencies were perceived as significantly more important by participants in the 1997 study than by participants in the 1991 study. Importance ratings provided by the 1997 respondents were significantly higher for the technical competencies of research skill and electronic-systems skill and the intellectual competency of visioning skill than they were in 1991. Two other competencies were perceived as significantly less important than in the 1991 survey. They are competency identification skill and objectives preparation skill, both of which are technical competencies.

The 1997 respondents indicated a significant difference in their perception of the extent of coverage as it relates to several competencies. Coaching skill, questioning skill, and objectives preparation skill were all considered adequately covered now, though each was perceived as being covered to a significantly greater extent in 1991. The media selection skill, also significantly different, was considered adequately covered in 1991 but was not considered adequately covered in 1997. Other skills considered significantly different in extent of coverage by the two samples but not adequately covered in either 1991 or 1997 are electronic-systems skill, research skill, feedback skill, and presentation skill.

The responses for the 1997 study were also examined to compare the perceived importance of a competency for undergraduate studies and graduate studies and to compare the perceived extent of coverage for undergraduate studies and graduate studies. T -tests were run to determine the means of the paired samples. The competencies that were not considered significantly different as to importance were: competency identification skill, media selection skill, objectives preparation skill, and presentation skill. The perception of the importance of all other competencies was significantly different for graduate and undergraduate studies, with importance within graduate studies being perceived as more important in every case. The competencies that were not considered significantly different as to extent of coverage were: computer competence, media selection skill, objectives preparation skill, and presentation skill. The perception of the extent of coverage of all other competencies was significantly different for graduate and undergraduate studies, with graduate studies being indicated as having greater coverage in every case.

The responses for graduate course work indicate that all competencies are important. The responses for undergraduate course work indicate that competencies not perceived as important include: research skill, organization-development theories and techniques, organization behavior understanding, budget and resource management skill, and business understanding. The responses for graduate course work indicate that competencies perceived as important but not adequately covered include: career development theories and techniques understanding, electronic-systems skill, budget and resource management skill, business understanding, organization behavior understanding, organization-development theories and techniques, coaching skill, negotiation skill, and visioning skill. The responses for undergraduate course work indicate that competencies perceived as important but not adequately covered include:

adult-learning understanding, competency identification skill, electronic-systems skill, evaluation skill, training and development theories and techniques understanding, coaching skill, feedback skill, group-process skill, negotiation skill, relationship-building skill, data-reduction skill, information-search skill, and visioning skill.

Implications and Recommendations

Although faculty in UCVE institutions consider the field of HRD important and consider the competencies valid, many respondents appear to be uncertain of exactly what their role and/or responsibility should be in integrating the teaching of these skills into their particular courses. In some cases, leadership appears to be needed to assist educators in sorting out their role in the development of competencies for HRD practitioners.

Despite the status of the development of the human resources field, results from this study suggest that the competencies are still an appropriate basis for HRD curriculum. In fact, an even greater number of the competencies were rated as important in 1997 than in 1991. The limitation of the findings is that perceptions of only the academic community were solicited for this study. A broader range of participation, including representatives from the business community, might have provided different results regarding importance of the competencies.

The implications for educational institutions and faculty involved in preparing HRD professionals are nonetheless significant. The continuing evolution of the HRD field and the evolving responsibilities and roles of HRD professionals demand that appropriateness of academic preparation be continuously assessed. Educational personnel need to be a part of creative dialogue that addresses what should be taught and why. Educators must work with others who prepare and hire HRD professionals to ensure that academic programs are effective. The competencies included in the preparation of HRD personnel must be aligned with traditional and emerging roles of HRD professionals.

Because the following skills are currently considered important but less than adequately covered in course work, changes in preparing trainers should focus on at least enhancing the following competencies: Adult- learning understanding, Career development theories and techniques understanding, Competency identification skill, Computer competence, Electronic-systems skill, Evaluation skill, Media selection skill, Training and development theories and techniques understanding, Research skill, Organization behavior understanding, Organization development theories and techniques, Coaching skill, Feedback skill, Negotiation skill, Relationship-building skill, Data-reduction skill, and Visioning skill.

In addition, course work for graduate studies should give more attention to the cluster of business competencies, which includes budget and resource management skill, business understanding, organization behavior understanding, and organization development theories and techniques. According to the 1997 survey results, course work for undergraduate students should give more attention to technical competencies, interpersonal competencies, and intellectual competencies and should focus less on business competencies.

In light of both the review of literature and the survey results, many competencies are interrelated and important in preparing trainers to work in the current global environment. Graduate courses should focus more on business competencies, and course work at all levels should also address cross-cultural competencies. As part of preparing trainers, internships in business and industry could be required to help meet the need for bridging the gap between theory and practice. Particularly in graduate programs where more business competencies are being called for, these internships could prove to be beneficial learning experiences.

Because perceptions of the importance of the competencies has not diminished, but rather increased, future studies could focus on several considerations:

1. A new model for competencies of trainers to meet the needs of the more global work place could potentially be designed by building on the 1989 Models for HRD Practice and integrating the variety of competencies discussed during the past few years as pertinent to providing training in cross-cultural settings.

2. Further research could be conducted to examine competencies appropriate for study by undergraduate HRD students and by graduate HRD students, and more structured curricula could be developed to support the development of these competencies.
3. If it remains the accepted practice to focus on specific competencies of trainers rather than on more broad-based skills, then certification of competencies, which is based on more highly structured and more widely accepted course work, could be considered as an option for enhancing the level of expertise in the field of training.

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Using an On-line Focus Group to Identify Research Issues in Distance Educator/Trainer Development

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A series of on-line focus groups was conducted to explore issues related to the training and development of distance educators/trainers. Ten distance educators participated in the focus groups, which used a web-based asynchronous communication tool. Emerging themes were identified which addressed issues related to defining a.) key characteristics and skills of the distance educator/trainer, b.) successful training and development activities and support services, and c.) barriers to successful development. Recommendations are made for further research in establishing development programs for distance educators, and the strengths and limitations of on-line focus groups as a research method are discussed.

Faculty training is critical to the success of any distance education program. In fact, designing, creating, and implementing effective in-service training is touted by some as the most efficient pathway to the long-term success of distance education (Willis, 1994). Effective distance training requires the right mix of instructional design, skilled distance trainers, and reliable delivery systems (Sheridan, 1996). However, the predominance of research in distance education has been devoted to studying delivery systems, design methods, and patterns of interaction (Threlkeld & Brzoska, 1994). Little research has been done on the development of the distance educator/trainer. This study explores emergent research questions related to the training and development of educators/trainers in distance training programs.

Further, the use of on-line focus groups for distance education research needs to be explored as a viable qualitative research method. Murray (1997) indicates that "methods of off-line focus groups can be adapted for virtual groups. The use of VFGs has provided valuable research data that could not have been readily obtained using other methods and from participants whom I could not have otherwise hoped to gather together for discussions without considerable expense" (p. 548). This study will evaluate the strengths and limitations of on-line focus groups for qualitative distance education research.

Research Questions

The following research questions, therefore, guided this study:

1: What are the issues related to developing effective distance educators/trainers?

2: What are the advantages and limitations of an on-line focus group for research in distance education?

Methods

Since the purpose of the research was to identify and explore emerging themes related to issues in the development of distance educators/trainers, the research method chosen was qualitative in design, with the primary collection method being focus groups. Typically, a focus group explores specific topics with groups of 6 to 8 people over a period of specified time (Patton, 1990).

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"Within qualitative research, focus groups have particular strength for gathering the breadth and depth of participants' opinions on issues specified by the researcher" (Murray, 1997, p. 542). An on-line focus group was selected since a diverse sample could be achieved by bringing members together from a variety of environments and locations through the connectivity of the World-Wide-Web. A face-to-face focus group was not feasible given time and resource constraints.

Pilot of Asynchronous Communication Tool. A pilot group using NetForum™ web-based discussion software was held the week of September 29, 1997 with a group of students enrolled in a distance education course at a midwestern university. The purpose of the pilot was to test the viability of an asynchronous communication tool as a vehicle for conducting focus groups, and to uncover technological and process issues. The software needed to support multiple users, be accessed easily on a website, support substantive discussion, and capture the discussion for future analysis. The pilot established a two-hour timeframe for discussion. Participants had no problems with accessing the tool from a variety of home platforms (MAC and PC) and with a variety of internet service providers. The only issue had to do with some services being slow, and others having a time-out feature that would dump subscribers who were inactive for a period of time. The tool in the pilot supported all of the required conditions and was selected for the full study.

On-line focus groups. Two on-line focus groups were scheduled, one in November and another in December, 1997. Participants accessed the focus groups through a website (http://coe.cedu.niu.edu/~bailey/research/index.htm). Focus questions and ground rules were posted on the website in advance of discussion. Focus groups were held exclusively in NetForum threaded discussion areas established for each focus group. (See Figure 1.) Each focus group was initiated with a four-hour "kick-off" session with the researchers on-line to address comments, questions, and facilitate discussion. The kick-offs were followed by seven days of asynchronous dialog. E-mail reminders were sent to research participants every 2-3 days reminding them to log-on and participate.

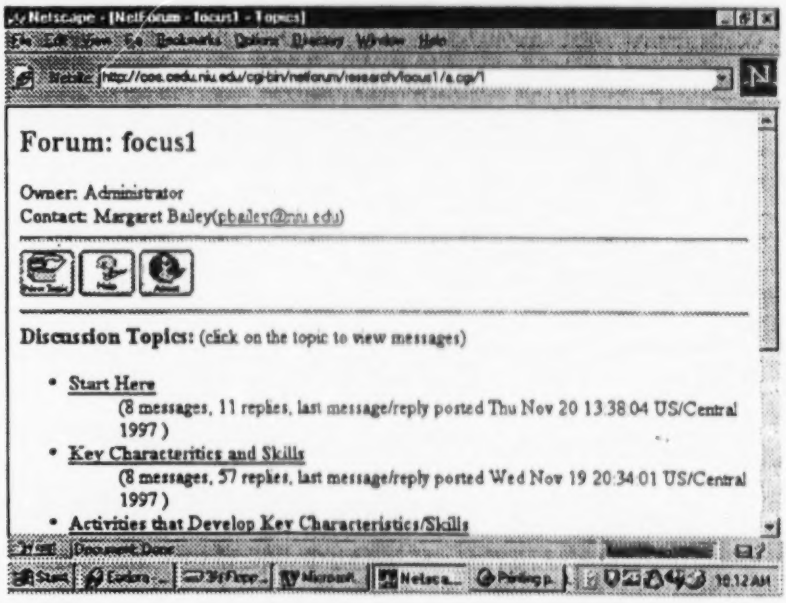
Forum: focus1
Owner: Administrator
Contact: Margaret Bailey(
Discussion Topics: (click on the topic to view messages)
Start Here
(8 messages, 11 replies, last message/reply posted Thu Nov 20 13:38:04 US/Central 1997)
Key Characteristics and Skills
(8 messages, 57 replies, last message/reply posted Wed Nov 19 20:34:01 US/Central 1997)
Activities that Develop Key Characteristics/Skills

Figure 1: NetForum™ Asynchronous Communication Tool.

Participants. Research participants were 10 practitioners with a stake in distance educator/trainer development to represent a mix of perspectives. The sample was purposeful, and members were invited based on research goals to establish a diverse sample of the following roles: instructional designer, distance education program administrator, distance education

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support service provider, distance trainer/educator, and distance learner. The final sample represented a mix of individuals currently active in distance education programs in academic and corporate settings, primarily from the states of Illinois and Florida. The same participants were invited to participate in both the November and December focus groups. The researchers acted as participant observers during both focus groups. A profile of each participant is provided below:

1. Andrew is a distance educator. He has taught in videoconferencing and just recently in web-based instruction.
2. Beth is an instructional designer of distance education programs. She primarily supports educators in the design of web-based instruction.
3. Cathy is a program administrator (coordinator of distance education programs). She works directly with distance educators to assist in their training and skill development.
4. David is a director of support services (distance education delivery systems). He supports distance educators in their technology and equipment needs.
5. Edward is an instructional designer of distance education programs. He supports educators in the design of both videoconferencing and web-based programs.
6. Fran is a distance educator. She has taught in videoconferencing and has recently organized a peer group for distance educators.
7. Gina is an instructional designer. She works with a team of designers to support trainers in the design of web-based and print instruction. She recently completed a course as a distance learner.
8. Helen is a program administrator (coordinator of distance education programs). She designs and delivers orientation sessions for new distance educators.
9. Joy is a program administrator (coordinator of distance education programs). She supports a professional organization with a wide range of distance education programs. She has completed several courses as a distance learner.
10. Kathleen is a distance educator and has taught courses in videoconferencing supported by web communication tools.

Analysis. The first focus group was held in November, 1997 and established a first level response to three focus questions (see Table 1). After a week of asynchronous dialog, and before the December, 1997 focus group, the researchers analyzed responses for emerging themes and constructed follow-up focus questions based on those themes (see Table 2). The questions became the group's focus questions in December. After the final week of dialog, the researchers analyzed responses for themes. Final themes, and recommendations for research, are presented in this paper.

A capstone question was posed to allow participants to evaluate and reflect on the on-line focus group experience. Responses, copuled with researcher observations and analysis of interaction patterns, provide a discussion of strengths and limitations of the on-line focus group research method to address research question two.

Themes from Focus Group One

All responses (n=83) from Focus Group One were analyzed for themes. Themes were categorized in relationship to each focus question (see Table 1). A discussion of each focus question follows below.

What are the key characteristics and skills expected of the distance educator/trainer? This question generated the most number of responses (n=65). Five themes emerged in response to the question. Participants felt that the key categories of skills included a.) knowledge of distance learning issues, b.) equipment utilization skills, c.) pedagogical skills, and d.) interpersonal skills. Participants chose to distinguish characteristics from skills. Participants defined several "ideal characteristics" early including patience, flexibility, enthusiasm, discipline, and optimism. The theme that prevailed, however, was that all of these represent a positive disposition toward distance learning and a willingness to pioneer new methods and technologies.

Responses for knowledge of distance learning and equipment utilization were at a sufficient level of detail and included specific skills for camera movement, computer skills, troubleshooting, knowledge of types of interaction in distance learning environments, and typical

Table 1. Summary of Focus Group One Questions and Themes

Focus Question	*Emerging Themes/Categories*
1-1. What are the key characteristics and skills expected of the distance educator/trainer?	a. Knowledge of distance learning issues. b. Equipment utilization skills. c. Pedagogical skills. d. Interpersonal skills. e. Pioneer attitude and disposition towards distance learning.
1-2. What are successful activities that facilitate the development of the key characteristics and skills in distance educator/trainers?	a. Those with experience should train others. b. Successful train-the-trainer strategies are creative and varied. c. Non-training performance support is overlooked.
1-3. What are the organizational and individual barriers to successful distance educator/trainer development?	a. Organizational barriers can be extensive. b. The myth of easy migration.

distance communication tools. Researchers had hoped for more specific responses related to pedagogy, thus developed follow-up questions for Focus Group Two (see Table 2).

What are successful activitites that facilitate the development of the key characteristics and skills in distance educator/trainers? A number of responses (n=18) focused on three themes: a.) experienced distance educators should train others, b.) a variety of train-the-trainer and orientation strategies can meet the needs of distance educator/trainers, and c.) support of distance educators should address more than formal training. Responses suggested that experience with both the technology and distance training are essential for the expert train-the-trainer. Train-the-trainer programs should include hands-on experience, authentic situations, use a constructivist approach, and include multiple opportunities for practice. Alternatives to formal training and orientation were suggested including apprenticeship programs, educator teams, and mentoring programs. Performance support needs and services were hinted at in a number of responses. This prompted a follow-up question in Focus Group Two (see Table 2).

What are the organizational and individual barriers to successful educator/trainer development? This question drew few initial responses (n=6) with most of the responses focusing on organizational barriers to include lack of release time, lack of awareness or commitment, and lack of resources (staff, equipment, support services). An interesting discussion on individual barriers noted the "myth of easy migration" as a barrier to effective development. Primarily, this myth promotes the notion among educators and administrators that distance training poses no new competencies beyond traditional face-to-face instruction. This prompted a follow-up question regarding additional individual barriers in Focus Group Two (see Table 2).

Themes from Focus Group Two

All responses (n-58) from Focus Group Two were analyzed for themes. Themes were categorized in relationship to each of five deeper focus questions (see Table 2). A discussion of each focus question follows the table.

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Table 2. Summary of Focus Group Two Questions and Themes

Focus Question	*Themes*	*Links to*
2-1. What personal obstacles, handicaps, or deficits must new distance educators/ trainers overcome to be successful?	a. Establish new perceptions. b. Overcome fears. c. Relinquish control. d. Establish reasonable expectations.	1-3b
2-2. What are the support needs of the new distance educator/trainer? What types of support services and activities are effective?	a. Technology support. b. Mentoring. c. Release time. d. Curriculum and media design. e. Adminstrative support.	1-2c
2-3. What pedagogical skills are required of the distance educator/trainer new to delivering courses via video-conferencing?	a. Lead activities for relationship building. b. Establish student ownership of learning. c. Engage learners. d. Use variety of instructional methods. e. Use effective classroom management. f. Establish team for design and technical support of teaching.	1-1c
2-4. What pedagogical skills are required of the distance educator/trainer new to delivering courses on-line (e.g., web-based instruction)?	a. Facilitation. b. Guide self-paced learning. c. Counsel and advise students. d. Provide access to easy to use tools and resources. e. Communicate without visual/verbal cues. f. Systems view.	1-1c
2-5. What are your personal recommendations to the distance educator/trainer facing migration from face-to-face delivery to distance delivery?	a. Be proactive. b. Find a support group. c. Tap into experience. d. Be a distance learner. e. Be prepared. f. Engage in DE research.	1-1e 1-3b

What personal obstacles, handicaps, or deficits must new distance educators/trainers overcome to be successful? This question was chosen to facilitate elaborated responses to Focus Group One question 1-3, theme b. Responses (n=14) focused on internal attitudinal barriers that inhibit development and revealed four central themes: a.) a need to develop new definitions of "classroom," "training," and "learning," b.) fears, c.) resistance to relinquishing direct control over learners and the environment, and d.) anticipation of negative expectations and evaluations

from students and peers. While the final theme links strongly to organizational barriers identified in Focus Group One, the prevailing theme here was on the internal fear of not being able to please all learners in this environment. Fears were discussed the most, and included fear of failure and making mistakes, self-consciousness (on camera), and fear of asking for help or revealing gaps in knowledge or expertise. Discussion did not move into identifying strategies for overcoming barriers.

What are the support needs of the new distance educator/trainer? What types of support services and activities are effective? This question was chosen to facilitate elaborated responses to Focus Group One question 1-2, theme c. Responses (n=10) quickly identified five categories of support needs: a.) technology, b.) mentoring, c.) release time (staffing), d.) curriculum and media design, and e.) administrative support. There was debate surrounding whether curriculum and media design should be support services, or whether these are expected roles and skills of the distance educator/trainer. The suggested activities that generated the most affirmation were informal performance support programs such as peer mentoring and support groups.

What pedagogical skills are required of the distance educator/trainer new to delivering courses via video-conferencing? This question was chosen to facilitate elaborated responses to Focus Group One question 1-1, theme c. and attempted to establish specific categories of pedagogy for videoconferencing. Responses (n=16) began with building consensus on a definition of pedagogy which is best represented in the following contribution by Beth:

> "How to teach" is the most important part of pedagogy and that is the science of teaching, which, in most cases, can be prescribed and can provide us with definite rules and principles for teaching...On the other hand, pedagogy also includes the "art of teaching"...I guess my point is when we are discussing pedagogy, it is good to keep in mind that we are talking about both science and art.

Participants felt distance educators/trainers should be able to successfully accomplish the following as part of their instruction: a.) lead activities for relationship building (such as icebreakers and teambuilding exercises), b.) establish student ownership of learning, c.) engage learners, d.) use a variety of instructional methods (e.g., lecturette, small group activities, discussion, pair work), e.) use effective classroom management (particularly for remote site students), and f.) seek out a skilled team for design and technical support of teaching. The prevailing theme for the final point about teams centered around preparation of instructional materials, with most agreeing that good design and preparation enables effective instruction.

What pedagogical skills are required of the distance educator/trainer new to delivering courses on-line (web-based instruction)? This question was chosen to facilitate elaborated responses to Focus Group One question 1-1, theme c. and attempted to establish specific categories of pedagogy for on-line distance training. Responses (n=8) indicated that the skilled web-based trainer should be able to accomplish the following in instruction: a.) facilitation, b.) guide self-paced learning, c.) counsel and advise students, d.) provide access to easy to use tools and resources, e.) communicate without verbal/visual cues, and f.) maintain a systems (rather than events) view of the instruction. An interesting underlying assumption in this discussion was that the web-based trainer needs skills to both develop and facilitate on-line instruction. In addition, participants had difficulty arriving at specific strategies and prescriptions, particularly for guiding students and establishing effective peer communication.

What are your personal recommendations to the distance educator/trainer facing migration from face-to-face delivery to distance delivery? This question was chosen to facilitate elaborated responses to Focus Group One question 1-1. Responses (n=10) tended to reiterate prior discussion in prescriptive form. Participants indicated six top priorities for the new distance educator/trainer: a.) be proactive, b.) find a support group, c.) tap into experience, d.) be a distance learner, e.) be prepared, and f.) engage in DE research. The response that drew the most affirmation was for the distance educator/trainer to directly experience instruction as a distance learner.

Final Themes and Recommendations for Research

Skills can be defined for the distance educator/trainer. Participants were able to identify several skills for the distance educator/trainer. The resulting broad categories of skills from Focus Group One, and the detailed pedagogical skills of Focus Group Two, serve as an emerging framework for future competency studies. Participants found it useful to distinguish pedagogical skills for videoconferencing and web-based training. Further research is required to confirm the necessity of this distinction, and to exhaust a list of competencies in these areas.

Distance education involves both science and art. An underlying theme of responses in this study suggests that development programs for distance educators/trainers should address both the science and art of teaching in these environments. Technical skills and rules of teaching can be systematically explored in competency studies and quantitative research designs. However, qualitative research methods are needed to explore the "art" of distance education and possible distinguishing success factors in such areas as "disposition" and "pioneering."

Both formal training activities and informal performance support activities should be explored for distance educator/trainers. A recurring theme prevailed in support of informal development and performance support activities for the distance educator/trainer. Research into the feasibility and effectiveness of informal activities such as mentoring and support groups is required.

Both organizational and individual barriers exist to successful distance educator/trainer development, and these barriers should be confronted in distance trainer development programs. Clearly, participants felt that no development program for distance educators/trainers can ignore the "baggage" brought by new distance educators and imposed, intentionally or not, by organizations. Research is required which confirms the external and internal barriers revealed here, and explores successful strategies that allow individuals to overcome the barriers to achieve success in distance education.

Advantages and Limitations of On-line Focus Groups for Research

Advantages of an on-line focus group for research. The on-line focus group method used in this study was able to accomplish the goals of the research project, and provided a sufficient number of thoughtful responses (n=141) for analysis. One of the greatest advantages noted by a participant was the asynchronous nature of the focus group which provided the ability to answer a question when *she* was ready, not when the agenda might dictate. As expected, participants progressively built on each others' responses as the study progressed, and as relationships formed. In fact, initial interaction analysis shows that Focus Group Two participant-participant interaction nearly doubled over Focus Group One. An advantage to the validity of the research, the method allowed for participation from some individuals that otherwise would not have contributed given schedules and distance. Diversity of the audience is the critical factor in focus groups, and the on-line focus group clearly has an advantage over face-to-face in this regard. Although not a part of this study, the possibility exists to run several on-line focus groups in the same timeframe, achieving reliability as well as validity of responses. Finally, since the tool used in the study keeps a historical text record of all responses, extensive text analysis for themes was possible.

Limitations of an on-line focus group for research. The greatest limitation of the on-line focus group over a face-to-face group was the extended timeframe required to conduct the study. Face-to-face groups can typically be accomplished in a half or full-day. This complete study was conducted over a four-week period, which was necessary due to the asynchronous nature of the tool and the need to develop deeper focus questions for follow-up. In fact, the timeframe of the study could have been extended further to achieve more depth and specificity, and to reach peaks in creativity and accelerated idea-building. Murray (1997) suggests that researchers pose flexible timeframes, calling discussion to a close when the responses dictate, not when the calendar does. Another disadvantage is attrition of participants and lack of participation. It is much easier to

keep an audience captive in a room, whereas participation on-line required instrinsic motivation and commitment outside of the control of the researcher. This study experienced attrition of three members from Focus Group One to Focus Group Two, and a small drop in total responses between groups (from 83 to 58).

Recommendations for conducting an on-line focus group. Most face-to-face facilitation skills for conducting focus groups transfer well to on-line environments. Using open-ended questions, summarizing and clarifying responses, and encouraging elaboration are all possible in text-based communication. In planning an on-line focus group, we found that posting ground rules and a simple structure for questions were essential components for getting started. (See http://coe.cedu.niu.edu/~bailey/research/index.htm for examples.) We also found that groups of 6-8 appear to be the minimum group size with this method. Ten participants worked well; however, between 10 and 15 would have accomplished more interaction and would have addressed attrition. Murray (1997) concurs, adding however that "group size alone is not necessarily the predictor of levels of contribution and interaction." Other factors such as motivation, perceived benefits, interest, and the nature of the question are also significant predictors of levels of participation.

Overall, the on-line focus group was an appropriate and useful method for this study. Further replications of the method should be conducted to further develop strategies for handling attrition, leading deep and meaninful discussion, and encouraging participation.

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